

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY
(Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

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|--|--|--|------------------|
| Applicant's or agent's file reference 2420-300525 | FOR FURTHER ACTION | | See item 4 below |
| International application No. PCT/RU2005/000112 | International filing date (day/month/year) 10 March 2005 (10.03.2005) | Priority date (day/month/year) 11 March 2004 (11.03.2004) | |
| International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237 | | | |
| Applicant SUKHANOV, Oleg Alexeevich | | | |

1. This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 bis.1(a).

2. This REPORT consists of a total of 6 sheets, including this cover sheet.

In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.

3. This report contains indications relating to the following items:

- | | |
|---|---|
| <input checked="" type="checkbox"/> Box No. I | Basis of the report |
| <input type="checkbox"/> Box No. II | Priority |
| <input type="checkbox"/> Box No. III | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability |
| <input type="checkbox"/> Box No. IV | Lack of unity of invention |
| <input checked="" type="checkbox"/> Box No. V | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| <input type="checkbox"/> Box No. VI | Certain documents cited |
| <input type="checkbox"/> Box No. VII | Certain defects in the international application |
| <input type="checkbox"/> Box No. VIII | Certain observations on the international application |

4. The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis.2).

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|---|---|
| The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No. +41 22 338 82 70 Form PCT/IB/373 (January 2004) | Date of issuance of this report 24 April 2007 (24.04.2007) |
| | Authorized officer Beate Giffo-Schmitt e-mail: pct@wipo.int |

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/RU2005/000112

Box No. 1

Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
☐ This opinion has been established on the basis of a translation from the original language into the following language: _____, which is the language of a translation furnished for the purposes of international search (under Rule 12.3 and 23 (b)).
2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material
☐ a sequence listing
☐ table(s) related to the sequence listing
 - b. format of material
☐ in written format
☐ in computer readable form
 - c. time of filing/furnishing
☐ contained in the international application as filed.
☐ filed together with the international application in computer readable form
☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.
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Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement

i. Statement

| | | |
|-------------------------------|-------------------|-----|
| Novelty (N) | Claims <u>1-4</u> | YES |
| | Claims _____ | NO |
| Inventive step (IS) | Claims <u>1-4</u> | YES |
| | Claims _____ | NO |
| Industrial applicability (IA) | Claims <u>1-4</u> | YES |
| | Claims _____ | NO |

2. Citations and explanations:

This report was compiled on the basis of the following documents:

D1 WO 96/02025 A
D2 WO 03/014850 A1
D3 RU 2213365 C2
D4 DE 19508474 A1

D1 describes a system for controlling the distribution of power in an electrical power system with a plurality of generating units. Said control system comprises a computer connected by means of communications to the generating units and a module for optimising the distribution of a given load.

The power distribution control system as per claim 1 differs in that it comprises a plurality of subsystems, each comprising a plurality of electric power plants with generating units, the computer is a high level computer and the load distribution optimisation module is intended to determine the parameters for an optimal regime of power distribution between the subsystems. Furthermore, the control system additionally comprises a plurality of

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Box No. V

Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement

computers in accordance with the number of subsystems, said computers being low level computers, each of which comprises a subsystem load distribution optimisation module intended to determine the parameters for an optimal regime of power distribution between the electric power plants within a subsystem, and a unit for calculating the functional specifications of each subsystem, each of the low level computers being connected by low level means of communication to the relevant electric power plants of the relevant subsystems. The control system also comprises high level means of communication, the low level computers being connected via said high level means of communication to the high level computer.

D2 discloses the use of a high level computer in a control system, said computer being connected via means of communication to low level computers intended to generate control signals for the subsystems of a technical installation.

None of D2-D4 contains information about the other distinguishing features cited above, i.e. the fact that the load distribution optimisation module is intended to determine the parameters for an optimal regime of power distribution between subsystems and that each of the low level computers comprises a subsystem load distribution optimisation module intended to determine the parameters for an optimal regime of power distribution between the electric power plants within a subsystem, and a unit for calculating the functional specifications of each subsystem, each of the low level computers being

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Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement

connected by low level means of communication to the relevant electric power plants of the relevant subsystems.

The aforementioned distinguishing features in combination with the known features make it possible to reduce the total volume of information transmitted when controlling the regimes for the distribution of power between the power plants within an electrical power system and increase the operating speed when solving the task of calculating the optimal regime for an electrical power system.

Consequently, claim 1 meets the requirements for novelty and inventive step.

Claim 1 meets the requirement for industrial applicability.